CLAIMS

1. A method for manufacturing a disintegrative core for high pressure casting, ~~wherein~~ a water-soluble salt, alone or in combination with a fine hard powder, ~~is melted and solidified~~ in a core mold; or ~~processed~~ into a fine powder and ~~molded~~ in a core mold under a pressure, said water soluble salt ranging from 280 to 520 °C in melting point and from 9.8×10^{-2} to 1.2x10 W/m·°C in heat transfer coefficient (κ) with a high latent heat, whereby the disintegrative core can be applied where a light metal such as aluminum alloy or magnesium alloy is subjected to high pressure casting, such as die casting or squeeze casting and is manufactured from the water-soluble salt.

2. The method as set forth in claim 1, wherein the water-soluble salt is selected from the group consisting of KNO_3, KNO_2, $NaNO_3$, $NaNO_2$, and mixtures thereof.

3. The method as set forth in claim 1, wherein the water-soluble salt is selected from the group consisting of salt mixtures, by weight percentage, of 82:17 NaCl:$CuCl_2$, 92:8 KNO_3:KCl, 54:46 KCl:LiCl, 93:7 $PbCl_2$:NaCl, 54:44 $MgCl_2$:NaCl, 53:47 $CaCl_2$:$BaCl_2$, and 54:46 NaCl:$CaCl_2$.

4. The method as set forth in any one of claims 1 to 3, wherein the water-soluble salt is melted at a temperature higher by 30~80 °C than that of its melting temperature and solidified in a mold.

5. The method as set forth in any one of claims 1 to 3, wherein the mold is made of graphite and heated to half of the melting temperature of the salt.

6. The method as set forth in any one of claims 1 to 3, wherein the water-soluble salt is processed into a powder with a particle size of 40~100 μm, introduced into the mold and molded under a pressure of 80~100 Mpa.

7. The method as set forth in any one of claims 1 to 3, wherein the molten water-soluble salt is added with 5~30 wt% of chemically non-reactive, fine hard particles, said fine hard particles being selected from the group consisting of powders, fibers and whiskers of metal or ceramics, and mixtures thereof.

8. A disintegrative core for high pressure casting, manufactured according to the method of any one of claims 1 to 7.

9. A method for extracting a disintegrative core for high pressure casting, comprising: heating ~~wherein~~ the core ~~is heated~~ to a melting temperature at which the high pressure cast article is not thermally deformed, extracting the core, ~~melt is extracted~~, and washing the cast article ~~is washed~~ with water.

10. The method as set forth in claim 9, wherein the high pressure cast article is heated at 320~550 °C for 3~5 minutes, whereby the heat is transferred to the inside of the core so that the core is melted and extracted.